

AMENDMENTS TO THE CLAIMS

Claims 1 (Currently Amended): A fin field-effect transistor comprising:

a substrate;

an insulator layer arranged on the a substrate;

a fin arranged above the insulator layer;

a drain region and a source region arranged outside the fin above the insulator layer and formed from a material with metallic conductivity;

a Schottky barrier arranged between the drain region and the fin and between the source region and the fin;

a gate which extends essentially along the entire height of at least a part of the fin; and

a diffusion barrier arranged between each of the drain region and the fin and the source region and the fin,

wherein the fin acts as a channel between the source region and the drain region.

Claim 2 (Original): The fin field-effect transistor according to Claim 1, in which at least one of the drain region and the source region include a polysilicon.

Claim 3 (Canceled)

Claim 4 (Currently Amended): The fin field-effect transistor according to Claim 3~~1~~, wherein the material with metallic conductivity comprises at least one a platinum silicide, a platinum germanium silicide, and an erbium silicide.

Claim 5 (Original): The fin field-effect transistor according to Claim 1, wherein the substrate includes silicon oxide.

Claim 6 (Original): The fin field-effect transistor according to Claim 1, wherein the fin includes silicon.

Claim 7 (Original): The fin field-effect transistor according to Claim 1, wherein the source region is arranged at one end of the fin and the drain region is arranged at another end of the fin.

Claim 8 (Original): The fin field-effect transistor according to Claim 7, wherein:
two end faces terminate the fin in its longitudinal extent,
the source region at one end face of the fin cooperates with the fin, and
the drain region at the other end face of the fin cooperates with the fin.

Claim 9 (Original): The fin field effect transistor according to Claim 8, wherein:
two broad sides connect the end faces of the fin,
the source region cooperates with the fin with a part, not covered by a gate, of
the broad sides of the fin, and
the drain region cooperates with the fin with a further part, not covered by the
gate, of the broad sides of the fin.

Claim 10 (Original): The fin field-effect transistor according to Claim 8, wherein:
the source region cooperates with the fin exclusively at one end face of the fin,
and

the drain region cooperates with the fin exclusively at the other end face of the fin.

Claim 11 (Original): The fin field-effect transistor according to Claim 1, comprising a spacer at least above a part of the fin.

Claim 12 (Original): The fin field-effect transistor according to Claim 11, wherein the spacer extends essentially along the entire height of the part of the fin.

Claim 13 (Original): The fin field-effect transistor according to Claim 11, wherein:
the gate is arranged between two spacers, and
a protective layer is arranged above the gate.

Claim 14 (Original): The fin field-effect transistor according to Claim 11, wherein the spacer and the protective layer include at least one of a silicon oxide and a silicon nitride.

Claim 15 (Original): The fin field-effect transistor according to Claim 11, wherein the gate extends along the entire length of the fin, and the outer sides of the spacers lie in one plane with the end faces of the fin.

Claim 16 (Original): The fin field-effect transistor according to Claim 1, comprising an insulation layer at least partially bounding the source region and the drain region is provided, wherein the drain and source regions have a smaller height above the substrate surface than the insulating region.

Claims 17-25 (Canceled)

Claim 26 (Previously Presented): A fin field-effect transistor comprising:

- a substrate;

- a fin above the substrate;

- a drain region and a source region outside the fin above the substrate, wherein the drain region and the source region are formed from a material having metallic conductivity, and a Schottky barrier is formed between the drain region and the fin and between the source region and the fin;

- a gate which extends essentially along the entire height of at least a part of the fin; and

- a diffusion barrier arranged between each of the drain region and the fin and the source region and the fin,

- wherein the fin acts as a channel between the source region and the drain region.

Claim 27 (Previously Presented): The fin field-effect transistor according to Claim 26, wherein the material with metallic conductivity comprises at least one of a platinum silicide, a platinum germanium silicide, and an erbium silicide.